

PHENIX WEEKLY PLANNING

TECHNICAL
SUPPORT
NO. 1



4/7/2011
Don Lynch

This Week:

No scheduled maintenance this week:

Brief access yesterday

Continuing mechanical, electrical and gas system support for Run 11

Plan for shutdown 2011

Future upgrades support

Next Week

Maybe a scheduled maintenance day next Wednesday, April 13th ????

No tasks identified yet

Continue Prep for FoCal prototype installation (waiting for prototype)

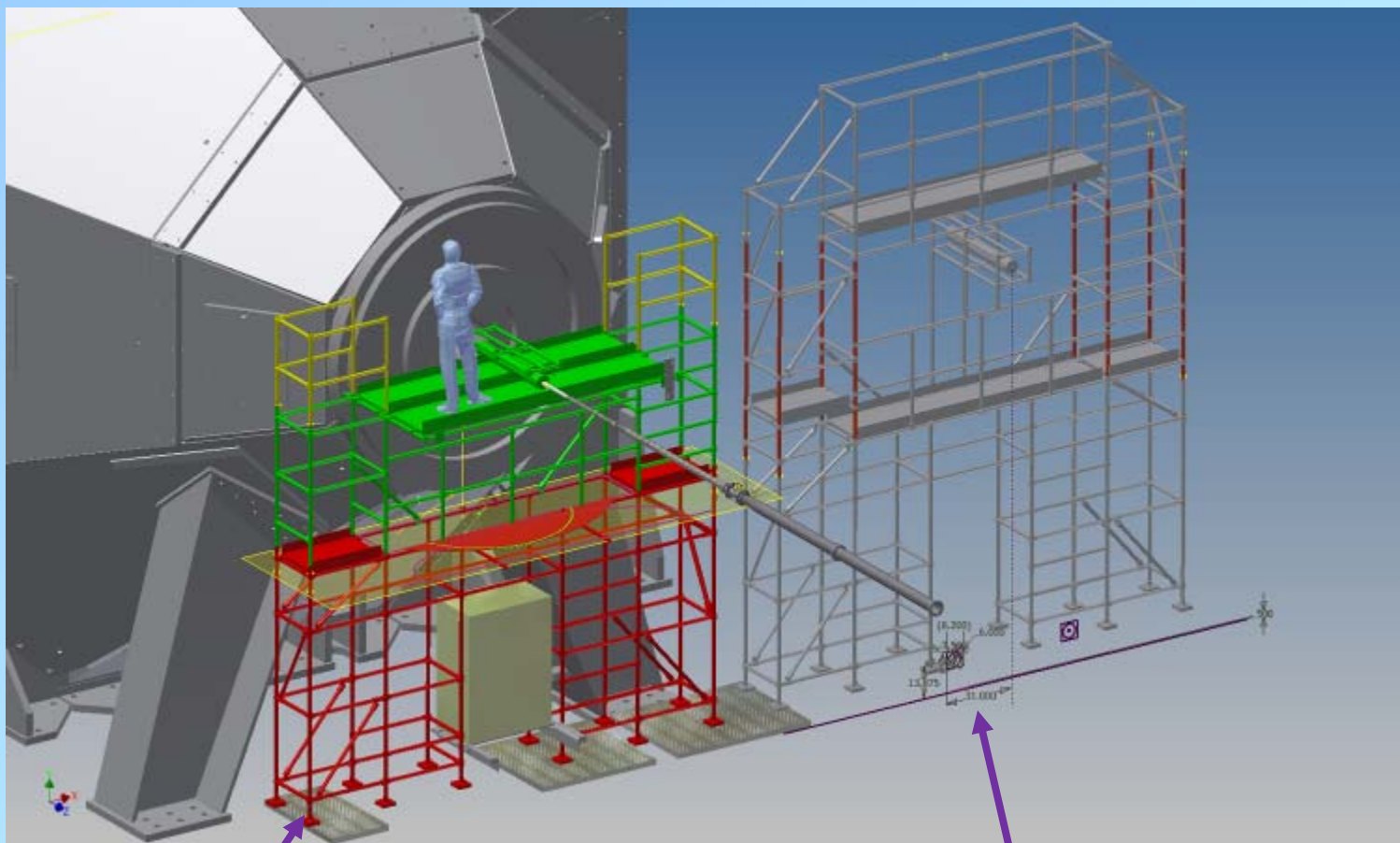
Continuing mechanical, electrical and gas system support for Run 11

Continue planning for shutdown 2011

Future upgrades support

MuTr & RPC1 Work platform/scaffold

TECHNICAL SUPPORT

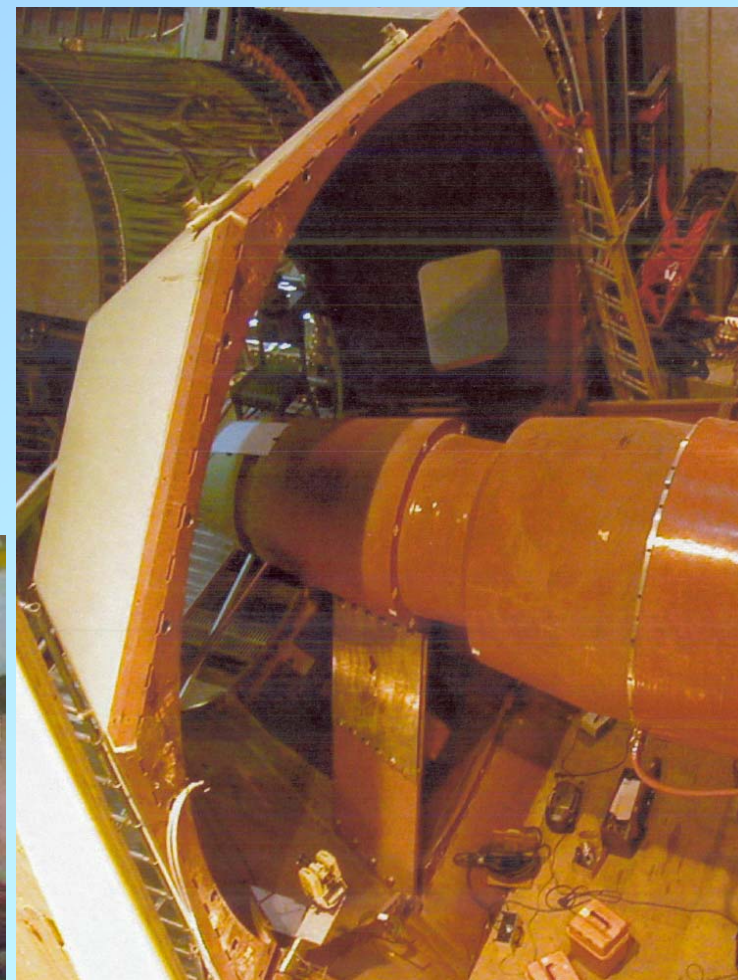


Modified Station 1 scaffolding

Existing Station 1 scaffolding



Improvements to cross bracing for Station 1 scaffolding



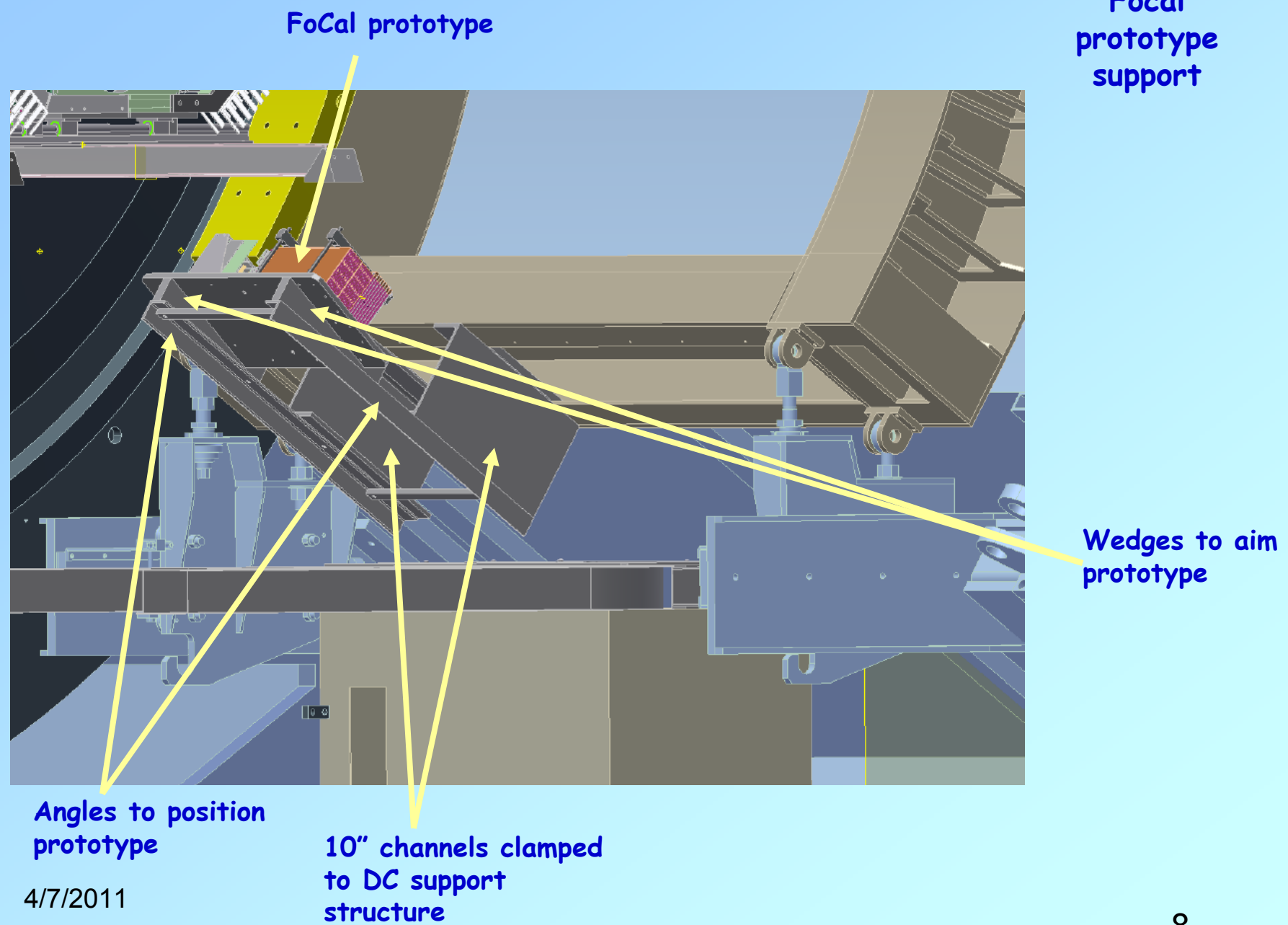
Station 2 access (MMS shown
MMN is similar)



MuTr station 1 lifting fixture



TECHNICAL SUPPORT



4/7/2011

Planning For the 2011 Shutdown

- Prep for shutdown 2/1-6/30/2011
 - Define tasks and goals
 - Analysis and design of fixtures, tools and procedures
 - Fabricate/procure tools and fixtures
 - Tests, mockups, prototypes
 - Receive, fabricate, modify, finish installables (bigwheels, tubing, etc.)
 - Review and approval of parts, tools, fixtures and proceures
 - Assembly and QA tests
- Run 11 Ends 6/30/2010
- Shutdown Standard Tasks 7/1-7/21/2010
 - Open wall, disassemble wall, Remove MuID Collars,
 - Move EC to AH, etc.
- Disassemble VTX services 7/11-7/22
- Remove VTX and transport to Chemistry Lab 7/25/2011
- BBC North maintenance 7/22-7/29/2011
- MuTr North Station 1 work 7/25-9/30/2011
 - Install access (scaffold) (1 week)
 - Disconnect Cables, hoses etc (1 week)
 - Remove FEE plates and chambers (1 week)
 - Station 2 Maintenance/upgrade through access opened by station 1 removal (3 weeks concurrent with next task)
 - Clean/install new parts and upgrades (3 weeks, concurrent)
 - Re-install chambers and FEE plates (1 week)
 - Re-cable, re-hose and test (3 weeks)

Planning For the 2011 Shutdown (cont'd)

TECHNICAL SUPPORT NOTES

- VTX maintenance/upgrade and integration of FVTX onto VTX support structure 7/25-9/25/2011
 - Disassemble/repair/upgrade/test/reassemble VTX (3 weeks)
 - Resurvey as necessary (1 week)
 - Install FVTX (3 weeks)
 - VTX/FTX survey and QA tests (2 weeks)
- RPC1 and Absorber upgrades 7/25-10/28/2011
 - Install north absorbers (1 week)
 - Install north RPC1 (3 weeks)
 - Install south absorbers (1 week)
 - Install south RPC1 (3 weeks)
- Install VTX&FVTX (2 weeks) 9/26-10/7/2011
- Undefined detector subsystem maintenance and repairs 7/25-10/7/2011
- Prep for EC roll in 10/3-10/7/2011
- Roll in EC 10/10/2011
- Prep IR for run 10/10-10/17/2010
- VTX, FVTX and RPC1 Services and commissioning 9/16-10/31/201
- Pink/Blue/White sheets 10/17-10/31/201
- Run 12 cooldown 11/1/2011

Tools/Fixtures Needed for Shutdown 2011

- FVTX/VTX modified assembly fixture - in progress
- FVTX inspection tool(s) - not yet specified
- Modified FVTX/VTX installation/transport fixture(s) - not yet specified
- RPC absorber assembly tool(s) - need absorber design first
- RPC absorber installation tool(s) - need absorber design first
- Station 1 North scaffolding - in progress
- RPC1 assembly fixture(s) - need RPC1 design first
- RPC1 transport/installation fixture(s) - need RPC1 design first
- MuTr vacuum lifter dummy load (for load test) - in progress
- MuTr additional lifting fixture(s) (FEM plate) - in progress
- Mu Trigger Stations 2/3 North&South access scaffolding - not yet specified
- Mu Trigger Stations 2/3 North&South Assembly/positioning/holding tool(s) - not yet specified

- Improved/upgraded VTX part(s) - not yet specified
- VTX assembly(s) - not yet specified
- FVTX support structure - in progress
- FVTX big wheels - parts to be fabricated by FVTX group, Brazing to be procured locally
- FVTX Big wheel mounts - parts to be fabricated by FVTX group
- VTX/FVTX arc cable trays and mounts - in design queue
- RPC PE&Pb/Li absorber Components (N & S) - need absorber design first
- RPC PE&Pb/Li absorber assemblies (N & S) - need absorber design first
- RPC PE&Pb/Li absorber mounting structure (N & S) - need absorber design first
- RPC1 components (N & S) - need RPC1 design first
- RPC1N assembly(s) - need RPC1 design first
- RPC1N mounting structure - need RPC1 design first
- BBCN wire management modification - in design queue
- RPC1S assembly(s) - need RPC1 design first
- RPC1S mounting structure - need RPC1 design first
- BBBS wire management modification - in design queue
- MuTr Repair/Upgrade Parts (including scaffolding) - parts to be supplied by MuTr group except scaffolding which is in progress

Parts Needed for Shutdown 2011

- MuTr Repair/Upgrade Assemblies - to be supplied by MuTr group
- MuTrigger Repair/Upgrade Parts (including scaffolding) - parts to be supplied by MuTrigger group except scaffolding which is in design queue
- Parts for Other Shutdown Work
 - Misc. Subsystem Part(s) - not yet specified
 - Gas Mixing House Maintenance and upgrade parts - not yet specified
 - PHENIX Infrastructure Maintenance and improvement parts - not yet specified
 - Gas Pad maintenance/repair/upgrade parts - not yet specified
 - PC1/DC repairs and improvements parts - not yet specified
 - IR Bridge electrical service upgrade parts - not yet specified
 - FoCal Support parts - not yet specified
 - RPC Factory Support parts - not yet specified
 - Rack room upgrades parts - not yet specified
 - CM Crane parts - project is on hold indefinitely
 - CM Alignment Stop parts - in design queue
 - Gas system maintenance/repair/upgrade parts - not yet specified
 - Future upgrade support parts - not yet specified

Procedures for Shutdown 2011

- Existing PHENIX General Purpose Recurring Task procedures
- VTX Removal
- FVTX/VTX installation
- VTX Survey
- FVTX Survey
- FVTX Cooling System
- RPC borated PE/Pb or Li Absorber
- RPC1 Installation/QA testing/Survey
- MuTr Maintenance & Upgrade
- MuTrigger Maintenance and Upgrade

Work Permits for Shutdown 2011

- Start of Shutdown
- VTX Removal
- FVTX/VTX Installation
- MuTr Maintenance and Upgrade
- RPC Absorber Upgrade
- RPC1 Installation
- MuTrigger Maintenance and Upgrade
- End of Shutdown

AH and IR Crane Corrective Actions



IR Crane 1 ton replacement parts received. Paul and Mike R. planning for upgrade work.

AH Crane (both hooks) out of commission until repaired. CAD engineering evaluating options:

- A. Recertify as is (incl. Vendor approval - unlikely) - **NO**
- B. Remove speed reduction and use as originally equipped - unsafe?? - **1 year?**
- C. Add bracketry to recertify as is - Feasibility under review - **NO**
- D. New Drive - cost and lead time **Preferred, but can't be installed for this year**
- E. Use portable crane - extremely inefficient **Last resort only**



We need this crane ASAP. Shutdown schedule is unacceptably impacted with anything less than a fully functional crane operated by PHENIX techs.

West Carriage liftable platforms ("window washer" platforms)
*Needs new cable,
 improved lockout method is desireable*



2010 Building Maintenance Issues

TECHNICAL SUPPORT

- Roof leaks in utility bathroom at northwest corner behind tech offices, over door between rack room and assembly hall, over door between control room and elect. ass'y room, southeast corner of IR and laser room.
- General maintenance for Trailer Offices (in progress)
-Repair replace floor tiling as needed
- Flooding in AH/ Driveway
- New ... connection

Nothing New This Week



PHENIX Procedure Review Current Status:

147 Procedures Identified

- 87 Made Inactive (not currently in use, will reactivate if and when necessary, available for re-activate if
- 9 CAD procedures relevant to the experiment and available on the
- 43 PHENIX procedures
- 9 Procedures (never previously formalized) (3 are ready for re-activate these will be addressed during next few months.

Web retrieval of latest procedures now available from PHENIX Internal:

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_procedures.htm

1. RPC Factory annual safety review
 - a) All procedures reviewed and found to be up to date requiring no revisions
 - b) Annual RPC Factory safety system blue sheet testing, Done
 - a) Safety walkthru needed, schedule TBD, after blue sheets Today, after this meeting
2. FoCal Prototype safety review
 - a) Documents prepared and submitted for review - Done
 - b) Installation procedure and work permit in progress - Waiting for prototype
 - c) Assembly of prototype and design of installation/support structure in progress - wire bonding in progress? (Fabrication Done)
 - d) Expect to install during a maintenance access period sometime in April?

3. No BNL injuries reported between 3/7 and 3/30. (another week with no incidents: DART, Recordable or First Aid)

4. CPR Training: April 29th 26th

Carter, Rob, Frank, ~~Chris~~, Kenny, Mike L., Chris P. and me.
Anyone else wanting to get in on this training, please let me know and I'll see if we can get another slot.

5. Safety Pic of the Week.



Where To Find PHENIX Engineering Info

Happy World Health Day!

This year's theme:
Anti-microbial resistance

This year's slogan:
No action today, no cure tomorrow

MagLev Contest video links:

http://www.mylitv.com/view_video.php?viewkey=7f6788918f03c42b123c

http://www.mylitv.com/view_video.php?viewkey=950fef2bd2aafa0b971a

Links for the weekly planning meeting slides, archives of past meeting slides, long term planning, pictures, videos and other technical info can be found on the PHENIX Engineering web site:

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm

